

CLAIMS

1. An anti-HIV agent which comprises a mannose binding protein (MBP) as an active component.

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2. The anti-HIV agent according to claim 1 wherein said MBP has HIV proliferation suppressive activity.

3. The anti-HIV agent according to claim 2 wherein said proliferation suppressive activity is HIV neutralizing activity.

4. The anti-HIV agent according to claim 2 wherein said proliferation suppressive activity is HIV budding suppressive activity.

5. The anti-HIV agent according to claim 1 or 2 wherein said MBP is isolated and purified from a human serum.

6. The anti-HIV agent according to claim 1 or 2 wherein said MBP is genetically secreted from an animal cell.

7. The anti-HIV agent according to claim 6 wherein said animal cell is Chinese Hamster Ovary cell.

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8. The anti-HIV agent according to claim 1 or 2 wherein said HIV is an HIV strain belonging to Subtype B of Group M of HIV Type 1.

9. The anti-HIV agent according to claim 1 or 2 wherein said HIV is an HIV strain belonging to Subtype D of Group M of HIV Type 1.

10. The anti-HIV agent according to claim 1 or 2 wherein said HIV is a recombinant epidemic strain.

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11. The anti-HIV agent according to claim 10 wherein said recombinant epidemic strain is CRF01_AE.

12. The anti-HIV agent according to claim 1 or 2 wherein said HIV is a virus having tropism toward CCR5.

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13. The anti-HIV agent according to claim 1 or 2 wherein said HIV is a virus having tropism toward CXCR4.

14. The anti-HIV agent according to claim 1 or 2 wherein
5 said HIV is a virus having tropism toward both CCR5 and CXCR4.

15. The anti-HIV agent according to claim 1 or 2 wherein said HIV is a virus having tropism toward macrophage.

10 16. The anti-HIV agent according to claim 1 or 2 wherein said HIV is a virus having tropism toward T cell.

17. The anti-HIV agent according to claim 1 or 2 wherein said HIV is a virus having tropism toward both macrophage and
15 T cell.

18. A method for evaluating an anti-HIV activity of MBP, the method comprises the steps of:

- (1) culturing HIV infected cells prepared by putting target
20 cells under the presence of HIV;
(2) preparing clean cells by washing the infected cells;
(3) culturing the clean cells under the presence of MBP;
and
(4) determining p24 protein from HIV in the culture
25 supernatant.

19. A method for evaluating an anti-HIV activity of MBP, the method comprises the steps of:

- (a) culturing a first mixed system including HIV and MBP;
30 (b) culturing a second mixed system including target cells and MBP;
(c) preparing infected cells by combining said first mixed system and second mixed system;
(d) culturing the infected cells;
35 (e) preparing clean cells by washing the infected cells;
(f) culturing the clean cells; and
(g) determining p24 protein from HIV in the culture supernatant.

40 20. The method according to claim 19 wherein said steps (a) and (b) are performed in parallel.

21. The method according to claim 19 or 20 wherein the clean cells are washed in said step (f) under the presence of MBP.

5 22. The method according to claim 18 or 19 wherein said anti-HIV activity is HIV proliferation suppressive activity.

23. The method according to claim 22 wherein said proliferation suppressive activity is HIV neutralizing
10 activity.

24. The method according to claim 22 wherein said proliferation suppressive activity is HIV budding suppressive activity.
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25. The method according to claim 18 or 19 wherein said MBP is isolated and purified from a human serum.

26. The method according to claim 18 or 19 wherein said
20 MBP is genetically secreted from an animal cell.

27. The method according to claim 26 wherein said animal cell is Chinese Hamster Ovary cell.

25 28. The method according to claim 18 or 19 wherein said HIV is an HIV strain belonging to Subtype B of Group M of HIV Type 1.

29. The method according to claim 18 or 19 wherein said
30 HIV is an HIV strain belonging to Subtype D of Group M of HIV Type 1.

30. The method according to claim 18 or 19 wherein said HIV is a recombinant epidemic strain.
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31. The method according to claim 30 wherein said recombinant epidemic strain is CRF01_AE.

32. The method according to claim 18 or 19 wherein said
40 HIV is a virus having tropism toward CCR5.

33. The method according to claim 18 or 19 wherein said HIV is a virus having tropism toward CXCR4.

34. The method according to claim 18 or 19 wherein said
5 HIV is a virus having tropism toward both CCR5 and CXCR4.

35. The method according to claim 18 or 19 wherein said HIV is a virus having tropism toward macrophage.

10 36. The method according to claim 18 or 19 wherein said HIV is a virus having tropism toward T cell.

37. The method of the evaluation according to claim 18 or
19 wherein said HIV is a virus having tropism toward both
15 macrophage and T cell.

38. MBP possessing an anti-HIV activity as determined by the method according to claim 18 or 19.

20 39. Use of an anti-HIV agent containing MBP as an active component for an HIV-infected individual.

40. Use of an anti-HIV agent according to claim 39 wherein
said HIV-infected individual is a patient with a virus having
25 tropism toward CCR5.